

WHAT IS CLAIMED IS:

1 1. A packaging arrangement for a coil of fiberoptic cable which
2 includes a plurality of individual coil loops, comprising:
3 a. an outer packaging tray; and
4 b. a fiberoptic coil carrier which is inserted into the outer packaging
5 tray for shipment or storage, and which can be removed from the tray, wherein the
6 carrier provides increased ease of handling of the fiberoptic coil by retaining it with a
7 plurality of separate retainers along the length of the fiberoptic cable, such that a
8 selected length of the fiberoptic cable can be removed from the carrier and remaining
9 coils of the fiberoptic cable remain secured to the carrier.

1 2. The packaging arrangement of claim 1, wherein the carrier also
2 defines a connector end retainer for retaining a connector end of the fiberoptic cable,
3 and a treatment end retainer for retaining a treatment end of the fiberoptic cable.

1 3. The packaging arrangement of claim 1, wherein the outer packaging
2 tray is sealed with a top closure, wherein the closure-sealed tray provides for
3 sterilization of the carrier/fiberoptic coil assembly in the outer packaging tray.

1 4. The packaging arrangement of claim 1, wherein the carrier is
2 designed and contoured specific to a particular surgical device, and is configured to
3 retain the particular surgical device until it is removed for usage.

1 5. The packaging arrangement of claim 4, wherein the outer packaging
2 tray is generic to a plurality of specific carriers and is not specific to a particular
3 carrier for a particular surgical device, such that it can package a standard fiberoptic
4 coil carrier.

1 6. The packaging arrangement of claim 1, wherein the carrier includes
2 an attachment means for attaching the carrier to a support, such that a surgeon can
3 position the carrier conveniently to require a minimum of handling.

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1 7. The packaging arrangement of claim 6, wherein the attachment
2 means comprises a spring clip.

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1 8. The packaging arrangement of claim 6, wherein the attachment
2 means comprises an adhesive area.

1 9. The packaging arrangement of claim 1, wherein the carrier is
2 formed from molded plastic, and includes a plurality of molded individual coil loop
3 retainers, each of which retains and secures a single coil loop of the fiberoptic cable,
4 which allows each loop to be individually released to eliminate springing, a molded
5 retainer to retain and secure a distal tip of the fiberoptic cable, and a molded retainer to
6 retain and secure a connector handle of the fiberoptic cable.

1 10. The packaging arrangement of claim 9, wherein each individual
2 coil loop retainer is formed by a molded groove.

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1 11. The packaging arrangement of claim 10, wherein each molded
2 groove defines a pair of opposed undercut shoulders which snap around an inserted
3 individual coil loop.

1 12. The packaging arrangement of claim 1, wherein a first recess
2 defines a tip receiver/protector, and a second recess defines a connector handle
3 receiver/protector.

1 13. The packaging arrangement of claim 1, wherein the outer
2 packaging tray comprises a rectangular tray which is thermoformed from plastic, the
3 tray has a bottom surface, sidewalls, and a flange at the top of and extending around
4 the sidewalls, and the bottom surface is generally flat with shaped relief areas defining (104)
5 one or more depressions to receive a shaped fiberoptic coil carrier.

1 14. The packaging arrangement of claim 13, wherein the relief areas
2 accommodate larger components of the fiberoptic cable such as the connector handle,
3 and also provide sufficient room and clearance to allow fingers to grasp and remove
4 the carrier, and wherein the carrier and fiberoptic coils are supported by intermediate-
5 height plateau surfaces, with the relief areas being positioned below the plateau (115)
6 surfaces.

1 15. The packaging arrangement of claim 14, wherein raised studs rise (105)
2 above the plateau surfaces to maintain the carrier and fiberoptic coil in position within
3 the tray, and also provide support for a top closure lid which is sealed to a flange
4 extending around the upper perimeter of the sidewalls.

1 16. The packaging arrangement of claim 15, wherein at least one
2 flange corner is recessed to provide an unsealed corner piece of the top closure lid (106)
3 which is suitable for grasping to pry the lid away from the tray.

1 17. The packaging arrangement of claim 15, wherein the carrier is
2 generally flat, and is thermoformed from plastic, and the carrier has an exterior profile
3 and shape to fit within the sidewalls and studs and on top of the plateau surfaces of the
4 tray.

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1 18. The packaging arrangement of claim 13, wherein the carrier has an
2 I shape.

1 19. The packaging arrangement of claim 13, wherein the carrier has a
2 Y shape.

1 20. The packaging arrangement of claim 1, wherein the top of the
2 carrier defines a plurality of molded individual coil retainer undercut grooves, an end
3 tip receiver/protector undercut groove, and a connector handle receiver/protector
4 which defines an undercut depression surrounded by raised ridges to retain the
5 connector handle therein.

1 21. The packaging arrangement of claim 1, wherein a connector end of
2 the fiberoptic cable is seated in a top portion of the carrier in a recess which is shaped
3 to match the profile of the connector, two opposed thermoformed posts have a
4 negative profile to match a circular barrel of the connector to retain the connector
5 barrel in place therein, the carrier retains individual fiberoptic coils with multiple
6 snap-fit recesses, and one recess has a larger size to secure therein a tip protector at the
7 treatment end of the fiberoptic cable.

1 22. The packaging arrangement of claim 22, wherein each snap-fit
2 recess is defined by a series of three offsets which have a profile to match the profile
3 of a fiberoptic cable.

4 23. A method of packaging a coil of fiberoptic cable which includes a
5 plurality of individual coil loops, comprising:

6 a. mounting the fiberoptic coil on a fiberoptic coil carrier which secures
7 the fiberoptic coil to the carrier with a plurality of separate retainers along the length

1 29. The method of claim 27, including securing each individual coil in
2 a molded groove on the carrier defined by a pair of opposed undercut shoulders which
3 snap around an inserted individual coil loop.

1 30. The method of claim 27, including securing a treatment end of the
2 fiberoptic cable in a first molded recess in the carrier defining a treatment end
3 receiver/protector, and securing a connector end of the fiberoptic cable in a second
4 recess in the carrier defining a connector end receiver/protector.

1 31. The method of claim 23, including packaging the fiberoptic carrier
2 in a rectangular outer packaging tray which has a bottom surface, sidewalls, and a top
3 flange extending around the sidewalls, wherein the bottom surface is generally flat
4 with shaped relief areas defining one or more depressions to receive and support the
5 fiberoptic coil carrier.

1 32. The method of claim 31, including supporting the carrier and
2 fiberoptic coil on intermediate-height plateau⁽¹¹⁵⁾ surfaces positioned above the relief
3 areas.

1 33. The method of claim 32, including maintaining the carrier and
2 fiberoptic coil in position within the tray by raised studs⁽¹³⁵⁾ which rise above the plateau
3 surfaces.

4 34. The method of claim 31, including sealing a top closure lid to the
5 top flange.